Letters to the Editor

New variant of Creutzfeldt-Jakob disease in a 26-year-old French man

SIR—Will and colleagues[1] describe ten young adults with a new variant of Creutzfeldt-Jakob disease (CJD). Here, we report a case with atypical clinical and pathological presentation resembling these cases.

A 26-year-old man had diffuse burning pain in his back. He became depressed, irritable, and emotional. After 6 months, the pain extended to his lower limbs, and he complained of ageusia. A year after becoming ill, he developed progressive intellectual deterioration and unstable gait. Neurological examination showed stiffness of the back and legs, pyramidal and cerebellar signs, slowing of eye motion on pursuit, and polyneuropathy which was confirmed by an electromyogram. Cerebrospinal fluid had a protein content of 0·56 g/L. After 17 months, the patient had swallowing difficulties, dystonic extensor posturing of the back, and had become progressively comatose with erratic eye movements. An electroencephalogram (EEG) showed bilateral slow waves. Magnetic resonance imaging revealed mild cortical atrophy and slight T2 signal intensity increase in the posterior thalamic regions and cerebral peduncles. The diagnosis of CJD was suspected only 2 months before death, when myoclonus of all limbs and a few biphasic and triphasic EEG features appeared. A prefrontal biopsy was performed. The patient died after his disease had lasted 23 months. Necropsy was limited to the brain.

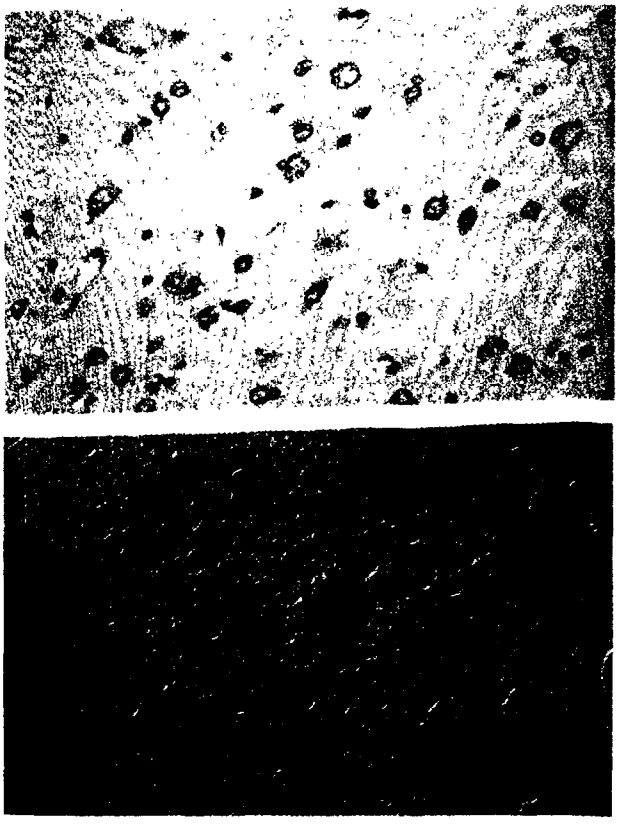

Figure: **Large multicentre plaques in middle layer of frontal cortex with smaller satellite deposits and perifocal spongiosis**
Plaques contain a congophilic amyloid core (top) immunoreactive with monoclonal antibody 3F4[2] to PrP (bottom) after hydrolytic autoclaving.[3]

The biopsy specimen showed spongiform encephalopathy with numerous cortical congo red-positive kuru-type plaques of variable diameter (figure). The larger plaques were often surrounded by a rim of spongiform change giving the lesion a daisy-like appearance. Immunostaining for PrP showed deposition of prion amyloid and disclosed many additional plaques and deposits (figure). Western blot analysis confirmed the presence of proteinase K-resistant pathological CJD prion protein (Dr Dormont) and PRNP genotyping revealed Met-Met homozygosity at codon 129, but no pathogenic mutations (Dr Laplanche).

The clinical and histopathological features of this case are similar to those reported by Will and colleagues. Such features were not observed in the previous 44 CJD patients investigated in our laboratory. To our knowledge, this is the first case of the new entity described in continental Europe. The patient was a mechanic and had no particular contacts with cattle. There was no family or personal history apart from congenital glaucoma operated on at the ages of 6 and 12 months. He had travelled abroad only once, in 1990, to the south of Spain.

This case questions the possible causal relationship between bovine spongiform encephalopathy (BSE) and the new CJD variant. The restricted occurrence of the latter to the UK, which has a high prevalence of BSE, argues for a pathogenetic link. However, to date only 16 cases of BSE have been reported in France. If further similar cases occur in countries with a low BSE prevalence, the epidemiological argument for a link between BSE and CJD might be weakened.

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1 Will RG, Ironside JW, Zeidler M, et al. A new variant of Creutzfeldt-Jakob disease in the UK. *Lancet* 1996; 347: 921–25.

2 Kascsak RJ, Rubenstein R, Merz PA, et al. Mouse polyclonal and monoclonal antibody to scrapie-associated fibril proteins. *J Virol* 1987; 61: 3688–93.

3 Kitimoto T, Shin RW, Doh Ura K, et al. Abnormal isoform of prion proteins accumulates in the synaptic structures of the central nervous system in patients with Creutzfeldt-Jakob disease. *Am J Pathol* 1992; 140: 1285–94.